

**MEDICAL DIAGNOSTIC ULTRASOUND INSTRUMENT WITH ECG
MODULE, AUTHORIZATION MECHANISM AND METHODS OF USE****ABSTRACT OF THE DISCLOSURE**

A handheld ultrasound instrument is disclosed having enhanced diagnostic
5 modes including pulse/continuous wave Doppler, time-motion analysis, spectral analysis and
tissue harmonic imaging. An external electrocardiograph (ECG) recording unit is also
disclosed. The ECG unit is adaptable to be used with the handheld ultrasound instrument to
provide for ECG monitoring while performing an ultrasound scan in B-mode, Doppler, color
Doppler, M-mode, and CW/PW mode. The enhanced handheld ultrasound instrument further
10 includes a security mechanism allowing any combination of the diagnostic modes to be
enabled by the manufacturer, and later to enable or disable any one or group of the diagnostic
modes. The invention also discloses a method for a manufacturer to maintain a database of
handheld ultrasound instrument capabilities after the instruments enter the stream of
commerce.

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